

What is Claimed is:

1. An array ferrule for use in an optical array connector comprising:
a main body having a fiber receiving cavity extending from a mating face to a rear
end and a pair of side surfaces extending rearward from the mating face;

5 pin slots each being precisely located with respect to the fiber receiving cavity
and extending inward from each side surface; and,

a plurality of channel plates each being formed from the same tool to have a
plurality of fiber receiving channels formed in a major surface thereof.

10 2. The array ferrule of claim 1 further comprising a pair of retention member slots
which are in communication with each pin slot.

3. The array ferrule of claim 2 further comprising a pair of retention members
located within the retention member slots.

15 4. The array ferrule of claim 3 further comprising a pin secured within the pin slot
by engagement with the retention member.

5. The array ferrule of claim 1 wherein the plurality of fiber receiving channels is
20 formed along a top surface of each channel plate.

6. The array ferrule of claim 5 wherein the plurality of fiber receiving channels formed in the top surface is aligned with a second plurality of fiber receiving channels formed in the bottom surface.

5 7. The array ferrule of claim 1 wherein the fiber receiving cavity has a central portion positioned approximately between the pin slots and at least one outer portion extending from the central portion and being partially located adjacent one of the pin slot.

8. The array ferrule of claim 1 further comprising a plurality of fibers each
10 positioned within respective fiber receiving channels of the channel plates.

9. A method of making an array ferrule for an optical connector comprising:
providing a main body blank having a mating face, a rear end and a pair of side walls extending from the mating face toward the rear end, the main body blank having a fiber
15 receiving cavity extending from the mating face to the rear end between the side surfaces;
precisely aligning the main body blank on a mandrel placed within the fiber receiving cavity;
broaching a pin slot in each side surface such that the pin slot is precisely located with respect to the fiber receiving cavity; and,
20 populating the fiber receiving cavity with a plurality of channel plates containing fiber ends within fiber receiving channels formed in the channel plates.

10. The method of claim 9 further comprising forming a retention member slot in the main body blank such that the retention member slot is in communication with the pin slot.

11. The method of claim 10 further comprising inserting a pin into the pin slot.

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12. The method of claim 11 further comprising the step of inserting a retention member into the retention member slot such that it is in contact with the pin and retains the pin in the pin slot.

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13. The method of claim 9 further comprising polishing the mating face.